



“Not in their front yard” The opportunities and challenges of introducing perennial urban meadows: A local authority stakeholder perspective



Helen Hoyle^{a,*}, Anna Jorgensen^a, Philip Warren^b, Nigel Dunnett^a, Karl Evans^b

^a Department of Landscape, University of Sheffield, United Kingdom

^b Department of Animal and Plant Sciences, University of Sheffield, United Kingdom

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ABSTRACT

The growing evidence base for the benefits for people and wildlife of nature-based solutions to managing urban green infrastructure lacks research investigating land manager perspectives on their implementation. To address this gap, we explored UK local authority manager perceptions of the challenges and opportunities of introducing perennial urban meadows to prioritise biodiversity and aesthetics. This was co-produced as an experiment in urban greenspaces with Luton Parks Service and Bedford Borough Council 2013–15. We conducted semi-structured interviews with the eight stakeholder managers involved to identify key factors impacting on the perceived feasibility of future urban meadow establishment in other areas. All managers identified three dominant factors (*aesthetics and public reaction, locational context, and human resources and economic sustainability*). Additional factors (*local politics, communication, biodiversity and existing habitat and physical factors*) varied in importance according to personal values and managerial role. Support for future meadow introduction and a desire to overcome the economic challenge of the disposal of meadow arisings were related to manager biocentricity. Managers were aware of changing public values leading to increasing acceptance of a messier urban aesthetic. They perceived perennial meadows as a realistic alternative to amenity mown grass that in specific contexts could increase local biodiversity and enhance aesthetics if implemented in consultation with the public and local councillors. Our findings have relevance for the wider implementation of such nature-based solutions to urban GI management: Changes in management practice such as the introduction of perennial meadows have significant political, strategic, economic and practical implications and cannot be viewed purely as a technical challenge.

1. Introduction

Urban populations experience nature predominantly through their interaction with green infrastructure (GI) i.e. mosaics of interconnected, often multifunctional green spaces such as parks, gardens and incidental green spaces. The need for urban GI to foster physical and psychological well-being is now one important focus of urban planning policy in the UK and elsewhere (for example, [Glasgow and Clyde Valley Green Network Partnership, 2016](#); [Greater London Authority, 2015](#)). Such policy also recognises the need for resilience of ecosystem services in the face of accelerating urbanisation and climate change (e.g. [EU Biodiversity Strategy, 2017](#)). Throughout Europe and elsewhere, urban GI is managed predominantly by local authorities, but many of these are facing major budget reductions – for example, one third of urban park managers in the UK have had budget cuts of over 20% in just two

years, with 90% facing some funding cuts ([Heritage Lottery Fund State of Public Parks Report, 2016](#)). Local authorities are thus looking for alternative management options and are increasingly drawn towards ‘nature-based’ solutions that harness ecological processes, are cost effective and also deliver environmental and social benefits ([European Commission Research and Innovation Policy, 2016](#)). Examples of these approaches include urban forest concepts, flood alleviation wetlands and meadow management of urban grasslands.

In the UK approximately two-thirds of urban GI is managed as closely mown amenity grass used primarily for recreation ([Forestry Commission, 2006](#)). Even where the species composition of urban grassland communities is relatively diverse, frequent mowing restricts plant structural diversity, and in turn limits invertebrate diversity and abundance ([Garbozov et al., 2015](#)). Mown amenity grassland also generates high maintenance costs associated with frequent mowing.

* Corresponding author at: Centre for Sustainable Planning and Environments, Department of Planning and Architecture, The University of the West of England, Frenchay Campus, Bristol. BS16 1QY, United Kingdom.

E-mail addresses: Helen.Hoyle@uwe.ac.uk (H. Hoyle), a.jorgensen@sheffield.ac.uk (A. Jorgensen), p.warren@sheffield.ac.uk (P. Warren), n.dunnett@sheffield.ac.uk (N. Dunnett), karl.evans@sheffield.ac.uk (K. Evans).

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(a) Peripheral site between low density post 1970s detached housing next to arterial road. Known pedestrian thoroughfare



(b) Wider green in front of post 1970s semi-detached housing



(c) Wide green adjacent to main road, low density housing & shops. Known pedestrian thoroughfare



(d) Urban park



(e) Linear site adjacent to post 2000 detached and semi-detached housing in semi-natural riverside setting. Pedestrian access via formal path



Fig. 1. Experimental meadow sites in contrasting urban contexts in Luton and Bedford. With the exception of (d) Urban park, all were adjacent to housing.

One alternative to this intensive management regime is the introduction of perennial urban wildflower meadows. These consist of managed grassland vegetation that contains perennial forbs and grasses and is cut once or twice a year. Potential benefits of introducing perennial meadows include a reduction in mowing frequency, an increase in habitat provision (Buri et al., 2013), nectar and pollen for invertebrates (Baldock et al., 2015; Garbozov and Ratnieks, 2014; Harmon-Threatt

and Hendrix, 2015) and aesthetic value for site users (Garbozov et al., 2015; Southon et al., 2017).

Despite the growing evidence base for the value of nature-based solutions for people and wildlife (e.g. Baldock et al., 2015; Garbozov et al., 2015; Southon et al., 2017), there is little research focusing on the challenges and opportunities experienced by local authorities attempting to implement these approaches to GI management. We address this

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